

Physics 6455: Quantum field theory I
Fall 2008
Tentative Syllabus

Aug 26-28:	quantum mechanics and path integrals
Sept 2-10:	path integral quantization of scalar fields and phonons
Sept 16-23:	diagramology, generating functionals, Ward-Takahashi
Sept 25 - Oct 9:	canonical quantization of scalar fields, phonons
Oct 2:	Test 1
Oct 14-23:	relativistic fermions
Oct 28-30:	nonrelativistic fermions
Nov 4-6:	renormalization group
Nov 11-18:	regularization methods
Nov 20:	Test 2
(Nov 25-27:	Thanksgiving break)
Dec 2-9:	renormalization
Dec 15:	Final exam

All dates are approximate; time spent on any topic will be adjusted to the backgrounds of the enrolled students.